# HEADQUARTERS THIRTIETH SPACE WING
# VANDENBERG AIR FORCE BASE, CALIFORNIA

# PERMITTED HAZARDOUS WASTE STORAGE FACILITY WASTE ANALYSIS PLAN 30 SW PLAN 32-7043-B

## 24 July 1999

**OPR:** **30 CES/CEV**
**806 13th Street, Suite 116**
**Vandenberg AFB, CA 93437**

**DISTRIBUTION: A; C; D**

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Vandenberg Air Force Base, California 93437-5000
24 July 1999

30 SPACE WING PLAN 32-7043-B (U)
RECORD OF ANNUAL REVIEW

**1. EACH HOLDER OF THIS WASTE ANALYSIS PLAN (WAP) IS RESPONSIBLE FOR CONDUCTING AN ANNUAL REVIEW AND FORWARDING SUGGESTED CHANGES/COMMENTS OR NEGATIVE REPLY TO 30 CES/CEVCC, THE OFFICE OF PRIMARY RESPONSIBILITY. COMPLETE THIS LOG FOR EACH ANNUAL REVIEW.**

| Date Annual Review | Conducted By | Date 30 CES/CEVCC Notified |
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**2. OTHER CIRCUMSTANCES WARRANTING WAP REVIEW AND UPDATE:**

a. When the WAP fails or proves to be ineffective for attaining goals;

b. When pertinent federal, state, and local laws or regulations change; or when DoD or Air Force policy change; and/or

c. Upon direction of the Environmental Protection Committee (EPC).

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30TH SPACE WING PLAN 32-7043-B (U)
RECORD OF CHANGES

**AS THIS WAP IS UPDATED OR CHANGED, EACH HOLDER OF THE PLAN WILL IMMEDIATELY POST THE CHANGES AND COMPLETE THE FOLLOWING LOG.**

| Change No. | Date Posted | Posted By |
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- NOTE: May use a separate page, if desired.

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30 SPACE WING PLAN 32-7043-B (U)
PLAN SUMMARY

1. PURPOSE. Under the Resource Conservation and Recovery Act (RCRA), permitted facilities are required to develop and follow a Waste Analysis Plan (WAP) as part of their Part B permit requirements. The WAP must describe the procedures for handling hazardous waste after it is received at a facility, and ensure that sufficient information is known about each waste stream for proper treatment, storage, or disposal of the waste. This WAP for the Vandenberg Air Force Base (AFB) permitted facility was developed in compliance with federal and state requirements. This plan describes the facility, outlines the responsibilities of all base agencies that generate and store hazardous wastes, and provides the procedures for identifying, accepting, and managing those wastes. An inventory of hazardous wastes stored at the permitted facility is presented in Appendix 2 to the Basic Plan.

2. CONDITIONS FOR IMPLEMENTATION.

a. Political-Military Situation. Compliance with this plan for the management of hazardous wastes is required for all readiness conditions, unless specifically exempted by the 30th Space Wing (30 SW) Commander.

b. Statement. This summary provides a brief overview of the requirements and major aspects of this plan. It is based on the federal, state, and local laws and regulations and Air Force direction available at the time of preparation, and is subject to modification as those requirements change. The information in it will be reviewed annually, or upon notification of changed requirements, and updated accordingly.

c. Legal Considerations. Building 3300 is the centralized hazardous waste storage building for most of the hazardous waste generated on Vandenberg AFB. The most notable exceptions are hazardous wastes picked up directly at the waste generation point; propellant, explosive, and pyrotechnic (PEP) materials handled by EOD personnel; wastes generated as a result of commercial space activities at SLC-7; and wastes not authorized by the Part B permit.

d. Environmental Considerations. The purpose of this plan is to ensure compliance with environmental laws and regulations. Nothing in this plan should be construed as contractual direction outside the scope of the program office authority. If inappropriate direction has been issued, then the contracting officer or the program office must be contacted.

3. OPERATIONS TO BE CONDUCTED. Operations to be conducted consist of managing and storing hazardous wastes in accordance with applicable and referenced laws and regulations.

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30 SPACE WING PLAN 32-7043-B (U)
BASIC PLAN

REFERENCES:
a. Air Force Pamphlet, 32-7043, *Hazardous Waste Management Guide*, November 1995.
b. Air Force Policy Directive, 32-70, *Environmental Quality*, 20 July 1994.
c. Air Force Instruction, 32-7042, *Solid and Hazardous Waste Compliance*, 12 May 1994.
d. Code of Federal Regulations, Title 40, Part 264.13.
e. California Code of Regulations, Title 22, Division 4, Section 66264.13.
f. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, Third Edition, U.S. Environmental Protection Agency, Washington, DC, 1987.
g. *Waste Analysis at Facilities That Generate, Treat, Store, and Dispose of Hazardous Wastes, A Guidance Manual*, OSWER Directive Number 9938.4-03, U.S. Environmental Protection Agency, Washington, DC, 1994.
h. Waste Analysis Plans, A Guidance Manual, EPA/530-SW-84-012, U.S. Environmental Protection Agency, Washington, DC, 1984.
i. 30 SW Plan, *Hazardous Waste Management Plan (HWMP)*, 24 July 1998.
j. "Part B, RCRA Permit Application," Vandenberg Air Force Base, January 1996.
k. Hazardous Waste Facility Permit (RCRA, Part B Permit), OD/S 95/96-3-001, Vandenberg Air Force Base, 13 June 1996.

TASKED ORGANIZATIONS: See Annex A for tasked organizations.

1. SITUATION. Execution of this plan will ensure continued operation of the mission through compliance with applicable laws and regulations and Air Force policy for managing hazardous wastes.

2. MISSION. The mission of the 30th Space Wing (30 SW) is to conduct and support space and missile launches, operate the Western Range, respond to worldwide contingencies, and host the Vandenberg Air Force Base (AFB) community. This plan supports that mission by meeting the strategic objective of aggressively complying with environmental requirements.

3. EXECUTION. This plan will be implemented and followed by the applicable units and agencies generating, and disposing of, hazardous wastes.

a. Hazardous Waste Management Unit Description. Building 3300 is the centralized hazardous waste storage building for most of the hazardous waste generated on

Vandenberg AFB. The most notable exceptions are hazardous wastes picked up directly at the waste generation point; propellant, explosive, and pyrotechnic (PEP) materials handled by explosive ordnance disposal (EOD) personnel; wastes generated as a result of commercial space activities at Space Launch Complex 7 (SLC-7); and wastes not authorized by the Resource Conservation and Recovery Act (RCRA) Part B Permit. A detailed description of, and other relevant information on, the permitted hazardous waste storage facility are provided in part iv of the Part B permit application.

There are a variety of activities associated with research and development, and testing and launching of air and space systems (e.g., missiles, satellites, and other aerospace equipment), conducted at Vandenberg AFB. These activities, in turn, involve a variety of industrial operations (e.g., metal finishing, electronics manufacturing, photographic processing, flightline activities, and space launches) that generate various types of wastes.

The hazardous wastes are stored in containers constructed of materials determined to be compatible with the waste and in accordance with Department of Transportation (DOT) specifications and manufacturer recommendations. Building 3300 is divided into several bays for storing ignitable, corrosive, reactive, toxic, and polychlorinated biphenyl (PCB) containing wastes. The design capacity of Building 3300 is 942 55-gallon drums. The layout of the permitted hazardous waste storage facility is shown in Figure 1.

This Waste Analysis Plan (WAP) for the permitted hazardous waste storage facility is intended to directly support the Part B permit and provides information regarding facility procedure, sampling and analysis, land disposal restriction requirements, and other waste analysis requirements. A list of the wastes permitted for storage at Building 3300 is included as Appendix 3. Wastes generated on Vandenberg are identified in Appendix 2, Waste Stream Inventory (WSI).

b. Criteria Checklist and WAP Contents. This WAP complies with federal and state requirements, and includes specific requirements for identifying and evaluating hazardous wastes at Vandenberg AFB. The RCRA requirements do not specify a format for the WAP; however, the California Department of Toxic Substances Control (DTSC) permit completeness checklist for waste characterization was used to ensure administrative completeness of the plan[1]. The applicability of each checklist item to the permitted facility, Building 3300, and the section where the item is addressed in the WAP, are provided in Appendix 1.

[1] Department of Toxic Substances Control, California Environmental Protection Agency, *Part 3, Waste Characterization, Permit Completeness Checklist*, June 1992.

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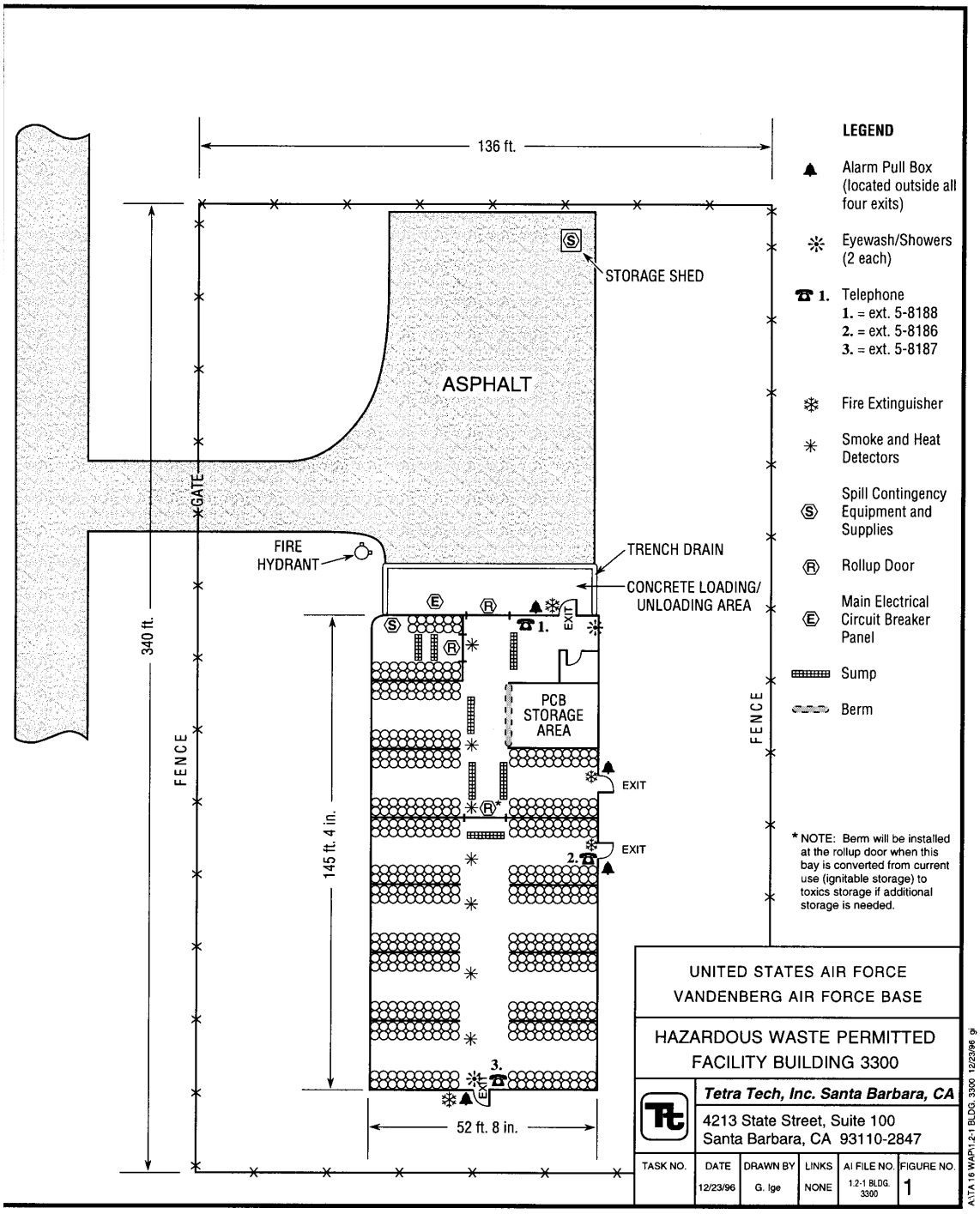
**Figure 1. Hazardous Waste Permitted Facility, Building 3300**



c. Facility Procedures and Limitations. Procedures for receiving and handling wastes and Building 3300 design limitations are discussed in the following subsections.

d. Procedures for Receiving Wastes. Vandenberg AFB has developed and implemented a program that will require each hazardous waste stream to have a specific VAFB Profile. The VAFB Profile provides a comprehensive description of each waste stream and is designed to streamline the hazardous waste turn-in and disposal process. The VAFB Profile was developed to characterize each waste stream; provide the data necessary for waste storage and disposal; determine appropriate treatment standards and minimize the amount of hazardous wastes generated.

Once a waste has been designated hazardous, the process owner/operator is required to prepare and submit a Hazardous Waste Characterization Form (HWCF) (Figure 2) to the Wing Environmental Services (WES) Contractor if the hazardous waste stream is new or has changed. The process owner/operator will be required to provide detailed information regarding the process that generates the waste, a physical and chemical description of the waste, and results of waste sample analysis and/or Material Safety Data Sheets (MSDSs) of process materials. To ensure the generating process is understood and sufficient information is available to properly profile the waste stream, the WES contractor may request additional documentation from the generator. The WES contractor will then prepare the VAFB Profile for that waste stream and will initiate the VAFB Profile approval process. Once approved, the waste stream information will be presented in the WSI. The flow of waste characterization/profiling information is depicted in Figure 3.

Before accepting wastes into the permitted hazardous waste storage facility, the storage facility personnel will review the VAFB Profile and accompanying paperwork. Only wastes that have a completed and validated VAFB Profile and are authorized by the Part B permit for storage at Building 3300 will be accepted (a list of permitted waste categories and their corresponding waste codes is presented in Appendix 3). For RCRA wastes, the storage facility personnel will verify that the U.S. Environmental Protection Agency (U.S. EPA) and/or California waste code(s) (as provided on the VAFB Profile) are listed on the permit. For both RCRA and non-RCRA hazardous wastes, the storage facility personnel will verify that the California waste code is listed on the permit for each waste category that applies. Where multiple waste codes are assigned, each must be authorized by the Part B permit. The waste will not be accepted into the permitted hazardous waste storage facility if its a waste category is not authorized by the Part B permit, or if it is assigned a waste code that is not listed for the applicable waste category(ies).

Upon receipt at Building 3300, facility personnel will verify the containers with the VAFB Profile and accompanying paperwork, check container labels for completeness, and verify that the containers of hazardous wastes are in good condition (i.e., they are packaged in approved, non-leaking, structurally sound containers that are safe to handle). Discrepancies will be resolved through 30 CES/CEVCC and/or the WES contractor.

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## Figure 2. Sample Hazardous Waste Characterization Form

### HAZARDOUS WASTE CHARACTERIZATION FORM (HWCF)

(Please read instructions • Use additional page(s) if necessary)

**PART I - GENERATOR INFORMATION**

A. Facility Address (Bldg #): 398
B. Organization: TETRA TECH Supply Shop Code: 1 2 3 A B
C. Technical Point of Contact (print): TIM MASKREY Phone: Ext. 5-1234
Title: SCIENTIST

**PART II - PROCESS INFORMATION**

A. Is this material an unused, expired shelf life, or off-specification product? *(Circle)* Yes (No) (If Yes, go to H.)
B. Short Name of Process Generating Waste (5 words or less): SRMU PROCESSING
C. Intended purpose or use of material for this process: PREPARATION OF SRMU SEGMENTS
D. Identify all products used during the process *(Hazardous and Non-Hazardous)*:

| Product Name/Common Name | % of Waste | Product Name/Common Name | % of Waste |
|---|---|---|---|
| 1. **Adhesive, sealants & primers** | 0.1 → 10 | 8. | |
| 2. **Rags, gloves, beakers** | 90 → 99.9 | 9. | |
| 3. | | 10. | |
| 4. | | 11. | |
| 5. | | 12. | |
| 6. | | 13. | |
| 7. | | 14. | |

NOTE: TOTAL CONCENTRATION OF ALL COMPONENTS (HAZARDOUS & NON-HAZARDOUS) MUST EQUAL 100%

E. Identify any contaminants in the waste and any potential sources of contamination. NONE
F. Has this waste stream been sampled within the last year? *(Circle)* Yes No If yes, attach analytical results.
G. If the waste is the result of a process, describe how each material listed in Parts D and E were used in the process.
COMPONENT #1 IS USED TO ATTACH, SEAL, OR PRIME PARTS DURING SRMU PROCESSING.
COMPONENT #2 IS USED TO APPLY OR REMOVE EXCESS COMPONENT #1.
H. Physical Data: Physical State *(Circle one)*: Liquid (Solid) Gas Sludge Aerosol pH
Color of Waste: WHITE, GREEN, BLACK Layering *(Circle one)*: (Single) Bilayered Multilayered
I. Projected Annual Weight 1500 (pounds)

**PART III - GENERATOR CERTIFICATION**

A. I, TIM MASKREY, hereby certify that the descriptions and information I have submitted for the completion of this HWPS is to the best of my knowledge an accurate representation of the waste and waste generating process.

I have a process in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practical.

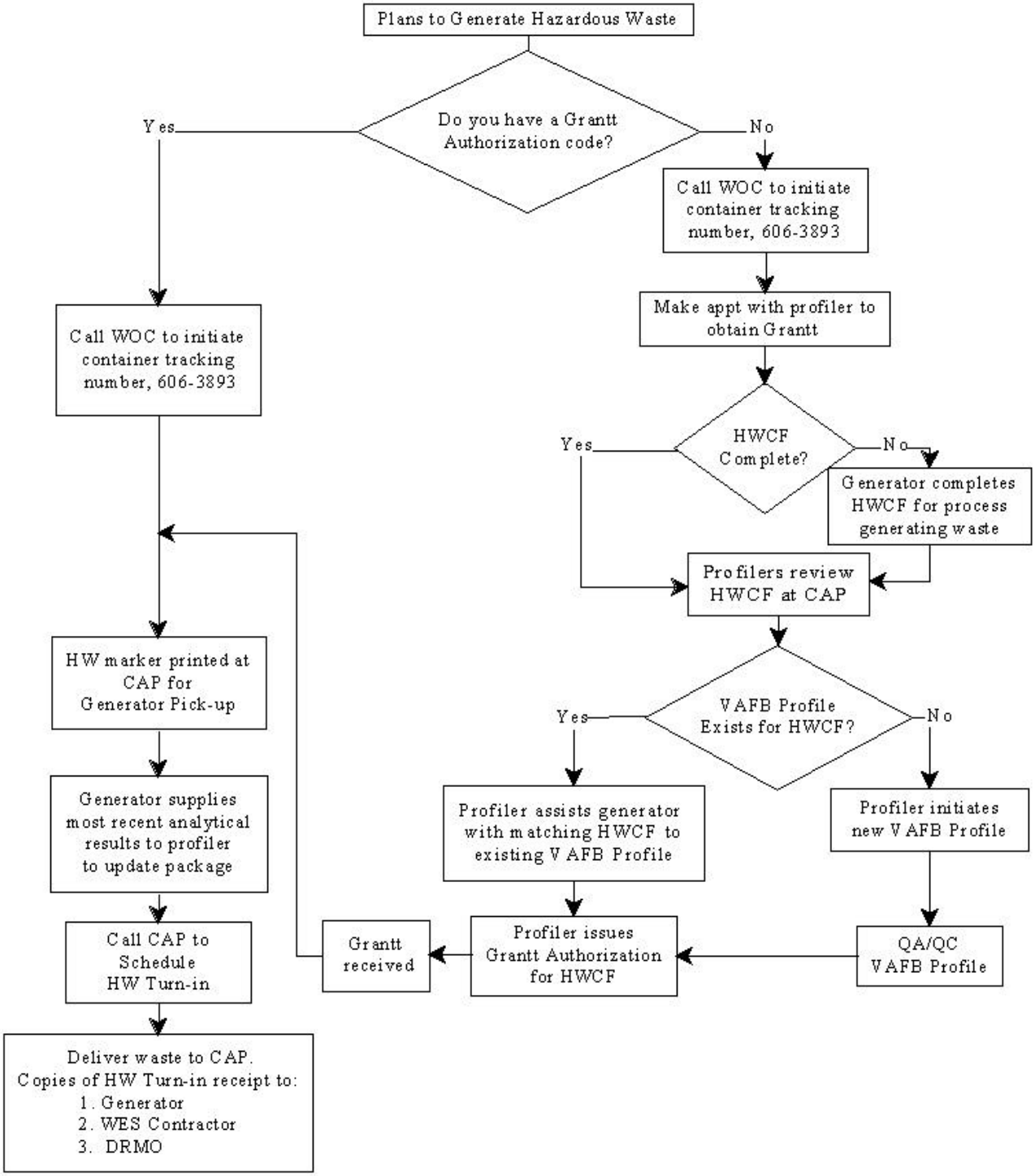
B. Basis for Information:
X User Knowledge (Attach MSDSs or other supporting documentation)
_____ Chemical Analyses (Attach analytical results)
C. Signature of Generator Representative: [signature] Date: 2/3/98

*For Internal Use Only*: Process Code: _____ GA #: _____ VAFB Profile #: 0006-01

Interim Form Number: VAN-X-02 (11/97)

C:\TA16\Revised HWCF (01/08/98)

**Figure 3. Waste Classification Flowchart**



e. Waste Sampling and Analysis. Hazardous waste characterization is the identification, description, and quantification of a hazardous waste stream. Since the proper characterization of hazardous waste ensures its proper control and timely disposal, each hazardous waste generating activity is responsible for ensuring its wastes are properly characterized in accordance with EPA-specified methods or by applying knowledge of the hazardous characteristics of the waste; MSDS, manufacturer product data, or other technical reference data (e.g., Sax Chemical Dictionary, Merck Chemical Index). Sampling and analysis will be conducted for all new or changed waste streams or when the information available is not adequate for proper classification of the waste. Acceptable user knowledge may be used alone or in conjunction with sampling and laboratory analysis. Sampling and analysis may not be necessary when:

(1) Hazardous constituents in wastes from specific processes are well documented (such as with the F-listed and K-listed wastes).

(2) Wastes are discarded unused commercial products, reagents, or chemicals of known physical and chemical constituents (such as many P-listed and U-listed wastes) whose contents are indicated on the label.

(3) There is up-to-date, written documentation regarding the constituents and process of the waste stream.

(4) Health and safety risks to personnel would not justify sampling and analysis (e.g., radioactive mixed wastes).

(5) The physical nature of the waste does not lend itself to taking a laboratory sample (e.g., steel construction debris).

For a sample to provide meaningful data, it is essential that it be representative of the waste stream from which it was obtained, its physical and chemical integrity be maintained, and that it be analyzed by an Environmental Laboratory Accreditation Program (ELAP) Certified Laboratory. The EPA document *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (SW-846) provides guidance in the design, development, and implementation of a sound sampling plan and descriptions of sampling methods, respectively, to achieve representative sampling. Sampling procedures, prescribed analytical test methods, and Quality Assurance/Quality Control (QA/QC) parameters will be developed and documented by the responsible organization: 30 AMDS/SGPB, the WES Contractor, and by the generator in some instances.

Sound sampling strategies will be implemented for each waste stream, and the sampling personnel will strictly adhere to the procedures in SW-846 and other EPA guidance documents. Only EPA-prescribed sampling methods will be used.

Samplers will select sampling and personal protective equipment that is most appropriate to the physical and chemical parameters of the waste. Sampling requirements for each waste stream are summarized in the WSI, Appendix 2.

Waste analysis parameters will be selected to define physical and chemical characteristics of the waste. Before it can be accepted into Building 3300, all waste will be completely characterized by user knowledge or chemical analysis.

Additionally, the waste will be recharacterized when appropriate laboratory information has not been provided to a destination off site; an offsite treatment, storage, or disposal facility (TSDF) has reason to suspect that the waste shipped was not accurately identified; or there are regulatory changes to the waste identification/classification rules. The newly characterized or recharacterized waste will require a new VAFB Profile before it can be accepted at the HWMU.

The EPA-approved analytical methods are described in detail in SW-846. For constituents that have no EPA-approved method, a copy of the method procedures used by the analytical laboratory will be kept on file by the organization that contracted the laboratory (e.g., WES contractor or 30 AMDS/SGPB). Analytical parameters, methods, and rationale for characterization of each waste stream are provided in the WSI, Appendix 2 to the Basic Plan.

In addition, the WES Contractor randomly performs open container inspections of Hazardous Waste containers at the Consolidated CAP. The purpose of the open container inspection is to verify that the containers comply with the California Code of Regulations (22 CCR), Code of Federal Regulations (CFR 40 & 49), and Air Force requirements.

f. QA/QC Procedures. The goals of the QA/QC program are to ensure that all analytical data generated from waste sampling will be scientifically valid, defensible, of known precision and accuracy so that wastes can be properly characterized for disposal. QA/QC program procedures and protocols for sampling and analysis will be followed as described in SW-846. The laboratory selected for sample analysis will be California certified for EPA-approved analytical methods to be performed and will be required to adhere to the QA/QC procedures as outlined in SW-846. The laboratory will maintain documentation of equipment inspection, maintenance, and servicing.

g. Procedures for Managing and Handling Wastes. The permitted hazardous waste storage facility personnel are trained in proper handling procedures in order to minimize damage to the containers. Hazardous waste containers are loaded and unloaded in a concrete bermed area. Containers are loaded by forklift and moved to the appropriate storage bays where they are placed on pallets. Containers are segregated in bays inside the storage building depending on the type of waste they contain, based upon the VAFB Profile information. Drums are checked to ensure that they are stable, and are firmly placed to guard against toppling or accidental spillage. No liquid or ignitable solid wastes will be stored on the third level of the storage racks. Aisle space of at least 4 feet is provided to allow proper access to the storage containers.

Prior to storage, all containers holding hazardous wastes will be properly sealed or closed as required. All containers and the storage area are inspected weekly for evidence of leakage or deterioration. Hazardous wastes stored in Building 3300 are shipped off site for treatment and disposal within 1 year of the accumulation start date.

h. Design Capacities and Limitations. Building 3300 is an enclosed storage area that is divided into several bays for storing ignitable, corrosive, reactive, toxic, and PCB containing wastes. The design capacity is 942 55-gallon drums (782 drums containing liquids and 160 drums containing solids). The container storage capabilities are limited by the amount of space available for holding drums, and the spill containment capacity of the area. Tables 1 and 2 show the storage capacity and containment capacity, respectively, of each bay.

i. Waste Stream Inventory. Each VAFB Profile represents a type of HW that is generated on Vandenberg AFB. The VAFB Profile does not specifically correlate a type of HW to a particular process at a particular facility. Only those HWs acceptable for storage at the HW storage facility (Appendix 3) will be transferred there. The remaining wastes will be removed within 90 days of accumulation, either from the Consolidated CAP, or at the point of generation. The Waste Stream Inventory consists of a VAFB Profile database summary of each waste stream (Appendix 2). Typical waste stream profiles include:

(1) Waste fluids resulting from repair and maintenance of vehicles (e.g., waste fuels, waste oils, waste coolants)

(2) Wastes generated from rocket launch operations (e.g., corrosive wastewaters)

(3) Spent batteries.

(4) Paint and paint-related wastes.

(5) Solvent wastes.

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**Table 1. Drum Capacity of Building 3300**

| | | Storage Capacity (No. of 55-gallon drums) | | | |
|---|---|---|---|---|---|
| **Rack No.** | **Bay No.** | **Total** | **Liquid*** | **Solids**** | **Type of Waste** |
| 1 | 1 | 32 | 32 | 0 | Ignitable |
| 2 | 1 | 32 | 32 | 0 | Ignitable |
| 3 | 2 | 32 | 32 | 0 | Ignitable |
| 4 | 2 | 32 | 32 | 0 | Ignitable |
| 5 | 3 | 32 | 32 | 0 | Ignitable |
| 6 | 3 | 32 | 32 | 0 | Ignitable |
| 7 | 4*** | 48 | 32 | 16 | Ignitable |
| 8 | 4*** | 48 | 32 | 16 | Ignitable |
| 9 | 9 | 45 | 29 | 16 | Corrosive (Acidic) |
| 10 | 9 | 45 | 29 | 16 | Corrosive (Acidic) |
| 11 | 10 | 45 | 29 | 16 | Toxic |
| 12 | 10 | 45 | 29 | 16 | Toxic |
| 13 | 11 | 48 | 32 | 16 | Reactive |
| 14 | 11 | 48 | 32 | 16 | Reactive |
| 15 | 5 | 32 | 32 | 0 | Ignitable |
| 16 | 5 | 32 | 32 | 0 | Ignitable |
| 17 | 6 | 32 | 32 | 0 | Ignitable |
| 18 | 6 | 32 | 32 | 0 | Ignitable |
| 19 | 7 | 32 | 32 | 0 | Ignitable |
| 20 | 7 | 32 | 32 | 0 | Ignitable |
| 21 | 8 | 32 | 32 | 0 | Ignitable |
| 22 | 8 | 32 | 32 | 0 | Ignitable |
| 23 | 12 | 45 | 29 | 16 | Corrosive (Basic) |
| 24 | 12 | 45 | 29 | 16 | Corrosive (Basic) |
| 25 | 13 | 32 | 32 | 0 | PCBs |
| Total | | 942 | 782 | 160 | |

**Notes:** * 55-gallon containers containing flammable solid or liquid hazardous wastes are stored only on the two lowest levels of the storage racks in individual bays.

** 55-gallon containers containing only solid hazardous wastes (or empty drums) are stored on the highest (third) level of the racks in individual bays; no liquids are stored on the third level of the storage racks. No ignitable solids will be stored on the third level racks at Building 3300.

*** Bay 4 is used for storage of ignitables. This bay may be converted to store toxic wastes in the future, which would not change the bay's drum storage capacity.

Source: Part B, RCRA Permit Application, Vandenberg Air Force Base, January 1996.

**Table 2. Secondary Containment Capacity of Building 3300**

| Area | Square Feet | Maximum Number of Drums (Liquid) | Storage Capacity (Gallons) | Containment Capacity (Gallons) | Required Containment Capacity (Gallons) |
|---|---|---|---|---|---|
| Bay 1-Ignitable | 545 | 64 | 3,520 | 2,900 | 2,816* |
| Bay 2-Ignitable | 545 | 64 | 3,520 | 2,900 | |
| Bay 3-Ignitable | 545 | 64 | 3,520 | 2,900 | |
| Bay 4-Ignitable** | 545 | 64 | 3,520 | 2,900 | |
| Bay 5-Ignitable | 545 | 64 | 3,520 | 2,900 | |
| Bay 6-Ignitable | 545 | 64 | 3,520 | 2,900 | |
| Bay 7-Ignitable | 545 | 64 | 3,520 | 2,900 | |
| Bay 8-Ignitable | 545 | 64 | 3,520 | 2,900 | |
| Bay 9-Corrosive (acidic) | 545 | 58 | 3,190 | 322 | |
| Bay 10-Toxic | 545 | 58 | 3,190 | 322 | |
| Bay 11-Reactive | 553 | 64 | 3,520 | 450 | |
| Bay 12-Corrosive (basic) | 545 | 58 | 3,190 | 322 | |
| Bay 13-PCBs | 545 | 32 | 1,760 | 1,620 | |
| Total | | 782 | 43,010 | | |

**Notes**: * Required containment capacity for all of the ignitable storage bays (bays 1-8).
** Bay 4 is used for storing ignitables, although it may be converted for toxics storage in the future. When this conversion occurs, a 2-inch berm will be installed at the entrance of the bay that will provide a secondary containment capacity of 363 gallons (the required capacity is 352 gallons).

A copy of each completed VAFB Profile for each waste stream listed in the WSI will be maintained at the permitted hazardous waste storage facility.

j. WSI Description. A brief description of the information provided in the WSI is given below.

(1) Waste Stream Information.

(a) VAFB Profile ID number. An identification number assigned to each unique waste stream.

(b) Name of waste. A name that is generally descriptive of the waste.

(c) EPA and California waste codes. The appropriate federal and state waste codes.

(d) Physical state of waste. Solid, liquid, gas, or other.

(e) Hazardous properties of waste. Corrosive, ignitable, reactive, or toxic.

(f) Basis for hazardous classification of waste. Indication of chemical analysis or process knowledge, or both, were used as a basis for classifying the waste as hazardous. If both of the boxes are checked, a combination of user knowledge and chemical analysis were used to characterize the waste streams.

(g) Projected annual weight (pounds). Projected quantity of waste generated annually.

(h) Rationale for HW designation. Description of the physical and chemical properties of the waste that will characterize it as a hazardous waste.

(2) Sampling Information (not all fields will be completed if chemical analysis is not checked as the basis for classification).

(a) Container. The type of container in which the waste is stored.

(b) Protocol. The reference used to select the waste analysis parameter.

(c) Strategy. The method used to obtain the sample.

(d) Collection Device. The device that will be used to physically obtain the sample.

(e) Frequency. Time interval between sample collections.

(3) Analytical Information (only completed if there is a requirement for chemical analysis).

(a) Parameter # 1. Identification of the first parameter selected for waste characterization.

(b) Method # 1. Identification of method(s) to test for parameter # 1.

(c) Rationale # 1. Description of the basis for selecting parameter # 1 and method # 1.

(d) Parameter # 2. Identification of the second parameter selected for waste characterization.

(e) Method #2. Identification of method(s) to test for parameter # 2.

(f) Rationale #2. Description of the basis for selecting parameter # 2 and method # 2.

(4) Notes. "N/A" or "n/a" means that the requested information was not relevant to the particular field. A blank space in Analytical Information means that no additional information was required to complete that particular field. Not all waste streams have been approved; therefore, there are gaps in the profile numbering system.

k. Methods and Frequency for Waste Stream Reevaluation. In accordance with AFI 32-7042, waste streams that generate more than three 55-gallon drums per year (high frequency) will be reevaluated annually or when processes are changed, or when other factors affecting waste identification have occurred. Waste streams that generate less than three 55-gallon drums per year (low frequency) will be reevaluated every 3 years, or when processes are changed, or when other factors affecting waste identification have occurred. At Vandenberg AFB, reevaluation criteria consist of three 55-gallon drums or 165 gallons of waste. The WES Contractor will perform this type of waste sampling with assistance from each generator. A WES Contractor sampling representative will coordinate sample collection and analysis to ensure compliance with AFI 32-7042. Waste analysis will be repeated as necessary to ensure that all information is accurate and up to date.

l. Procedures for Handling Suspected Changes in a Waste Stream. If a change in waste is suspected, efforts will be made to obtain more information from the point of generation. The waste will not be accepted until the discrepancy or reason for suspicion has been explained and resolved. If a change is found, a new VAFB Profile will be generated.

m. Methods to be Used for Ensuring Compatibility of Wastes with Handling Methods. Many hazardous wastes can produce effects that are harmful to human health and the environment when mixed with other waste or material. The special requirements for managing

incompatible, ignitable, and reactive wastes outlined in Title 22 California Code of Regulations (CCR), Article 9 of Chapter 14, will be followed to minimize the potential hazards of such wastes.

Base process owner/operators are required to comply with regulatory packaging requirements and to provide a complete description of the wastes, including amounts and types of contaminants, prior to acceptance at Building 3300. These requirements ensure that incompatible wastes are not placed in the same container or storage bay. Waste types are isolated from each other in separate bays within Building 3300, and there are adequate barriers to prevent intermixing of incompatible wastes.

Ignitability and reactivity data will be obtained using process knowledge and/or the appropriate standard test method as specified in SW-846. In addition to the potentially incompatible waste examples of Appendix V in CCR 22:66264, the U.S. EPA documents *Design and Development of a Hazardous Waste Reactivity Testing Protocol* (EPA-600/52-84-057), provides procedures for waste compatibility evaluations. *A Method of Determining the Compatibility of Hazardous Wastes* (EPA-600/2-80-076), contains procedures to qualitatively evaluate the compatibility between wastes for a given process, may be referenced in determining incompatible wastes.

Accumulated precipitation and spilled or leaked waste collected in the container storage area will be removed in a timely manner, placed in appropriate containers, and characterized. The collected liquids will be managed as hazardous waste until the analytical results prove otherwise.

n. Waste Compatibility with Containers. Chemical analysis or user knowledge will be used to determine the compatibility of the waste with the container. The wastes will be stored in containers constructed of materials determined to be compatible with the waste as described in 40 CFR, Part 264, Appendix V. The containers will also be lined, if deemed necessary, with materials that are compatible with, and will not react with, the stored wastes.

The containers will comply with the DOT specifications stated in 49 CFR, Part 178 and 49 CFR, Chapter C (with respect to lining). No hazardous wastes will be placed in a contaminated container that previously held an incompatible waste or material. Contaminated containers will not be used at the permitted hazardous waste storage facility.

o. Waste Analysis Requirements Pertaining to Land Disposal Restrictions. Land disposal of certain untreated hazardous waste is prohibited. Regulations have been adopted that prohibit the land disposal of certain spent solvents, dioxin-containing wastes, and other RCRA and non-RCRA hazardous wastes. The generator must use knowledge of the waste, test the waste, or test an extract of the waste using the Toxicity Characteristic Leaching Procedure (TCLP) or Waste Extraction Test (WET) to determine if the waste is restricted from land disposal under 40 CFR Part 268, or CCR 22 66268.

p. Wastes Subject to Land Disposal Restrictions. Land Disposal Restrictions (LDR) certifications and documentation are completed by the DRMS/UBH Contractor prior to shipment to an off-base facility.

q. Notification and Certification Requirements. Wastes are sent off site with appropriate LDR notifications for treatment and disposal. All generator notices and certificates pertaining to land disposal restrictions, along with the manifests, are retained for 5 years.

r. Methods to Ensure the Waste Analysis Plan is Kept Up to Date. VAFB Profiles will be updated whenever a new waste stream is generated and/or when an approved waste stream changes. This plan will be updated annually to ensure it remains current. All changes to this plan will strictly adhere to 30 SW/XP requirements.

4. ADMINISTRATION AND LOGISTICS. The resources required and available to support the implementation and continuation of this plan are as stated in Annex J.

5. COMMAND AND SIGNAL. Not applicable.

STEPHEN L. LANNING
Colonel, USAF
Commander

4 Appendices:

1. Criteria Checklist
2. Waste Stream Inventory
3. Part B Permit Authorized Waste List
4. Acronyms

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Commander, Civil Engineering Squadron

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APPENDIX 1 TO THE BASIC 30 SPACE WING PLAN 32-7043-B (U)
CRITERIA CHECKLIST

| ***REQUIREMENTS*** | ***APPLICABILITY (Basic Plan Location)*** |
|---|---|
| | |
| Identify for each hazardous waste handled: | |
| 1. U.S. EPA Hazardous Waste number and basis for RCRA hazard designation | Sec 3d; Append 2 |
| 2. California Waste Code | Sec 3d; Append 2 |
| 3. Waste name with restricted wastes identified | Sec 3d; Append 2 |
| 4. For land disposal facilities receiving restricted wastes: | N/A |
| a. RCRA wastes – copies of extension approval notices from U.S. EPA and Cal EPA | N/A |
| b. Non-RCRA wastes – copies of variance approval notices | N/A |
| 5. Hazardous Properties of Waste | Sec 3d; Append 2 |
| a. Physical and chemical properties | Sec 3j; Append 2 |
| b. Ignitability | Sec 3j; Append 2 |
| c. Corrosivity | Sec 3j; Append 2 |
| d. Reactivity | Sec 3j; Append 2 |
| e. Incompatibility | Sec 3m; Append 2 |
| f. Known health and environmental effects | Sec 3i |
| 6. Estimated monthly and annual quantities produced and units of measure | Sec 3j; Append 2 |
| 7. Process(es) that produced the waste | Sec 3j |
| 8. Process(es) used for handling waste | Sec 3g |
| 9. Design capacities and waste handling processes for, and identification of hazardous wastes to be handled in, each of the following types of units: | |
| a. Containerized waste | Sec 3g, h |
| b. Waste in tank systems | N/A |

| ***REQUIREMENTS*** | ***APPLICABILITY (Basic Plan Location)*** |
|---|---|
| c. Waste in piles | N/A |
| d. Landfilled wastes | N/A |
| e. Wastes incinerated and wastes used in performance tests | N/A |
| f. Wastes to be land treated | N/A |
| g. Wastes in surface impoundments | N/A |
| h. Wastes in drip pads | N/A |
| i. Wastes in miscellaneous treatment units | N/A |
| 10. Results of chemical and physical analyses of the waste | Sec 3e |
| 11. Documented waste data from a source other than operator's waste analysis | Sec 3d, e |
| B. Waste Analysis Parameters | |
| 1. The parameters for which the waste will be analyzed | Sec 3e |
| 2. Rationale for choosing those parameters | Sec 3e |
| C. Waste Sampling and Sample Management | |
| 1. The sampling procedures to be used to obtain a representative sample of the waste | Sec 3e |
| 2. Protective gear required | Sec 3e |
| 3. Sampling method number and reference | Sec 3e; Appendix 2 |
| 4. Sampling device | Sec 3e |
| 5. Description of any method not approved by U.S. EPA | Sec 3e |
| 6. Storage instruction | Sec 3e |
| 7. Statistically representative sampling technique (simple, stratified, or systematic random sampling; composite or grab sampling; subsampling) | Sec 3e |
| 8. Practicality of statistically representative sampling (physical barriers, alternative methods) addressed | N/A |
| 9. Number of sampling sites | N/A |
| 10. Waste containment devices when sampling | Sec 3e |
| 11. Physical state(s)/layers of waste | Sec 3e |

| ***REQUIREMENTS*** | ***APPLICABILITY (Basic Plan Location)*** |
|---|---|
| 12. Precision and accuracy of sampling procedures | Sec 3e |
| 13. Rationale for sampling strategy selected | Sec 3e |
| 14. For samples taken by non-facility people, certification/documentation of representative sampling procedures | Sec 3e |
| D. Waste Analysis Procedures | |
| 1. Test methods to be used | Sec 3e, m |
| 2. SW-846 method and rationale for choice | Sec 3e, m |
| 3. Detailed description and reference for any method not U.S. EPA-approved | Sec 3e |
| 4. Detection limits of analytical method | Sec 3e |
| E. Conditions Requiring and Frequency of Repeated Sampling and Analysis | |
| 1. The frequency with which the waste analysis will be repeated or reviewed for accuracy and timeliness | Sec 3k |
| 2. Methods and frequency for reevaluation of wastes: | Sec 3k |
| a. Potential for wastes restricted from the facility being included by mistake | Sec 3l |
| b. Process design limitations | N/A |
| c. Variability of waste composition | N/A |
| d. Chemical/physical instability of the waste | Sec 3m |
| e. Prior history of the generator's performance and reliability | N/A |
| f. Procedures if a recharacterization proves the waste is unacceptable to the facility | Sec 3k, l |
| 3. Procedures if change in waste is suspected: | |
| a. To obtain information | Sec 3k, l |
| b. Sampling and analysis | Sec 3e |
| c. Criteria to evaluate waste change information | Sec 3l |
| d. For handling wastes proven unacceptable by the facility | Section 3l |
| F. Additional Requirements for Off-Site Facilities | N/A |
| Off-site facilities must also identify in the plan: | N/A |

| *REQUIREMENTS* | *APPLICABILITY (Basic Plan Location)* |
|---|---|
| 1. The waste analyses that hazardous waste generators have agreed to supply | N/A |
| 2. The procedures to be used to inspect and analyze (if necessary) each load of hazardous waste received to ensure that it matches the waste identified on the manifest | N/A |
| 3. Shipment screening procedures: | N/A |
| a. Manifest review | N/A |
| b. Visual inspection | N/A |
| c. Frequency and percent of shipment inspected, sampled, and/or analyzed annually | N/A |
| d. Procedures for shipments which are unacceptable by the facility | N/A |
| e. Key parameters for shipment analysis of each waste or waste type | N/A |
| G. QA/QC Procedures | |
| 1. Goals of QA/QC | Sec 3f |
| 2. Intended use of and quantity of data to be gathered | N/A |
| 3. Acknowledgment that QA/QC procedures will be followed as described in specific test methods in SW-846 | Sec 3f |
| 4. Performance evaluation of trained sampling and analysis personnel | Sec 3f |
| 5. Frequency of personnel evaluations and rationale | Sec 3e |
| 6. Documentation of evaluations | Sec 3e |
| 7. Chain of custody procedures: | |
| a. Labeling and seals | Sec 3e |
| b. Field logbook | Sec 3e |
| c. Receipt and logging of samples by lab personnel | Sec 3e |
| d. Chain of custody records | Sec 3e |
| e. Sample analysis request sheet | Sec 3e |
| f. Method of containment and preservation | Sec 3e |
| g. Confirmation sheet of sample delivery | Sec 3e |
| 8. Laboratory aspects of chain of custody: | |

| *REQUIREMENTS* | *APPLICABILITY (Basic Plan Location)* |
|---|---|
| a. Documentation | Sec 3e |
| b. Numbering and documenting path of samples through laboratory | Sec 3f |
| c. Destiny of remaining sample after analysis | Sec 3f |
| d. Documentation and forwarding of test results to manager for filing | Sec 3f |
| 9. Documentation that lab equipment is inspected, maintained, and serviced periodically | Sec 3f |
| 10. The frequency with which the waste analysis will be repeated or reviewed for accuracy and timeliness | Sec 3f |
| 11. Wastes analyzed outside the facility | |
| a. Documentation of analytical procedures and representative sampling | Sec 3f |
| b. Certification of outside lab to perform this test method | Sec 3f |
| 12. For all facilities, describe methods to ensure that the waste analysis plan will be kept up to date | Sec 3e |
| H. Waste Analysis Requirements Pertaining to Land Disposal Restrictions | |
| 1. Waste characterization | Sec 3o, p |
| a. Solvent wastes and dioxin containing wastes | Sec 3o, p |
| b. California list wastes | Sec 3o, p |
| c. First third wastes with treatment standards | Sec 3o, p |
| d. Second third wastes with treatment standards | Sec 3o, p |
| e. Third third wastes with treatment standards | Sec 3o, p |
| 2. Notification and certification requirements | |
| a. Retention of generator notices and certifications | Sec 3d |
| b. Notification and certification for wastes to be further managed | Sec 3d |
| c. Additional notification and certification requirements for treatment facilities | N/A |
| d. Additional notification and certification requirements for disposal facilities | N/A |
| e. Notification and certification requirements pertaining to landfill and surface impoundment disposal restrictions | N/A |
| 3. Additional requirements pertaining to the storage of restricted wastes | N/A |

| *REQUIREMENTS* | *APPLICABILITY (Basic Plan Location)* |
|---|---|
| 4. Additional requirements for treatment facilities | N/A |
| 5. Additional requirements for land disposal facilities | N/A |
| I. Waste Analysis Requirements for Wastes to be Incinerated During Operation and Performance Tests | N/A |
| 1. Major hazardous and non hazardous waste constituents | N/A |
| 2. Heat of combustion | N/A |
| 3. Viscosity | N/A |
| 4. Solids loading | N/A |
| 5. Physical form of nonliquid wastes | N/A |
| 6. HCl concentrations | N/A |
| 7. Ash content | N/A |
| 8. Characteristics of hazardous waste fuel as incinerated | N/A |
| 9. Sampling, analysis and quality assurance in characterizing waste fuel | N/A |
| 10. Blending of waste fuels | N/A |
| 11. Homogeneity of waste fuels | N/A |
| J. Ignitable, Reactive, and Incompatible Wastes | |
| 1. The methods to be used for ensuring compatibility of wastes with handling methods | Sec 3m |
| 2. Waste compatibility with containers | Sec 3a, d |
| a. Procedures for determining compatibility of a waste with a container | Sec 3m, n |
| b. Procedures for analyzing liquids that are collected in a storage area | Sec 3m |
| c. Procedures for analyzing ignitable or reactive containerized wastes | Sec 3m |
| d. Procedures for determining compatibility of wastes to be placed in same container | Sec 3n |
| e. Procedures for determining compatibility of a waste with wastes previously held in reused containers that were not decontaminated | Sec 3n |
| f. Procedures for determining compatibility of a waste with other wastes stored nearby in containers, piles, open tanks, or surface impoundments | Sec 3m |

| ***REQUIREMENTS*** | ***APPLICABILITY (Basic Plan Location)*** |
|---|---|
| 3. Waste compatibility with tanks | N/A |
| a. Procedures for analyzing liquids collected in the collection area | N/A |
| b. Procedures for determining compatibility of a waste with a tank | N/A |
| c. Procedures for analyzing ignitable or reactive wastes managed in tanks | N/A |
| d. Procedures for determining compatibility of a waste with any raw materials or other wastes potentially or previously held in the tank | N/A |

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APPENDIX 2 TO THE BASIC 30 SW PLAN 32-7043-B (U)
WASTE STREAM INVENTORY

The waste stream inventory will be contained in copies maintained at DRMO, 30 CES/CEV, and the Consolidated CAP. The electronic copy and other copies will refer the reader to one of the aforementioned offices for reference.

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APPENDIX 3 TO THE BASIC 30 SW PLAN 32-7043-B (U)
PART B PERMIT AUTHORIZED WASTE LIST

| Waste Category | Waste Description | EPA Waste Code | California Waste Code | Estimated Annual Generated Quantity (pounds) | Process (HWMU) |
|---|---|---|---|---|---|
| 1. Ignitable Wastes | Absorbent, mineral spirits, alodine, lithium battery, isopropanol, JP-5, JP-4, JP-8, JP-5 mix with JP-4, labpack, petroleum naphtha, acetone, Freon xylene, cyclohexanone, paint, paint thinner, PD-680, solvents, waste oil, waste oxidizer, phosphorous, hexane, resins, coating solution, mineral spirits, gasoline, diesel, zinc dust, and asphalt | D001 | 141, 181, 211, 212, 213, 214, 221, 223, 271, 281, 331, 343, 352, 451, 461, 491, 741 | 450,000 | DRMO Storage |
| 2. Corrosive Wastes | Sulfuric acid solution, cleaning compound with phosphoric acid, nitric acid, dry and wet alkaline batteries (containing potassium, hydroxide), sodalime calcium hydroxide, sodium hydroxide, labpack, paint thinner, tannic acid, solvents, zinc chloride, chromic acid, formic acid, fluoroboric acid, and sulfonic acid | D002 | 121, 122, 123, 132, 135, 141, 181, 211, 331, 541, 723, 741, 791, 792 | 155,000 | DRMO Storage |
| 3. Reactive Wastes | Battery | D003 | 181, 151 | 80,000 | DRMO Storage |
| 4. Arsenic Containing Wastes | Arsenic | D004 | 181 | 150 | DRMO Storage |

**Source**: RCRA Part B Permit (OD/S 95/96-3-00, June 1996)

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| Waste Category | Waste Description | EPA Waste Code | California Waste Code | Estimated Annual Generated Quantity (pounds) | Process |
|---|---|---|---|---|---|
| 5. Barium Containing Wastes | Waste compressed gases, barium sulphate formic, and barium metaborate | D005 | 132, 343, 213 331 | 500 | DRMO Storage |
| 6. Cadmium Wastes | Cadmium-containing batteries and washrack sludge | D006 | 132, 331, 342, 181, 722, 212 | 90,000 | DRMO Storage |
| 7. Chromium Wastes | Alodine, sodium gluconate, sodium chromate, chromium & lithium, and chromic oxidizer | D007 | 132, 141, 181, 211, 331, 723 | 17,000 | DRMO Storage |
| 8. Lead Wastes | Lead batteries, waste paint, paint slurry, alkaline cleaning compounds, contaminated rags, and waste asphalt | D008 | 181, 352, 132 331, 724, 491 | 115,000 | DRMO Storage |
| 9. Mercury Containing Wastes | Waste ORM-B Nos and mercury | D009 | 181, 212 | 30,000 | DRMO Storage |
| 10. Selenium Containing Wastes | Selenium | D010 | 181 | 500 | DRMO Storage |
| 11. Silver Containing Wastes | Photographic waste, silver ammonium thiosulphate | D011 | 181, 541, 342 132 | 3,000 | DRMO Storage |
| 12. Benzene Containing Wastes | Gasoline | D018 | 611, 135, 221 134, 222 | 45,000 | DRMO Storage |
| 13. Carbon tetrachloride Containing Wastes | Carbon tetrachloride | D019 | 211 | 30 | DRMO Storage |
| 14. Chloroform Containing Wastes | Chloroform | D022 | 211 | 1,250 | DRMO Storage |
| 15. P-Cresol Containing Wastes | Di-T-Butyl-P Cresols | D025 | 343 | 100 | DRMO Storage |

| Waste Category | Waste Description | EPA Waste Code | California Waste Code | Estimated Annual Generated Quantity (pounds) | Process |
|---|---|---|---|---|---|
| 16. Cresol Containing Wastes | Cresols | D026 | 214 | 200 | DRMO Storage |
| 17. 1,4-Dichlorobenzene Containing Wastes | Dichlorobenzene | D027 | 211 | 300 | DRMO Storage |
| 18. 1,1-Dichloroethylene Containing Wastes | Dichloroethylene | D029 | 211 | 1,000 | DRMO Storage |
| 19. Methyl Ethyl Ketone Wastes | Methyl ethyl ketone | D035 | 181 | 100 | DRMO Storage |
| 20 Tetrachloroethylene Wastes | Tetrachloroethylene | D039 | 352 | 350 | DRMO Storage |
| 21. Trichloroethylene Wastes | Trichloroethylene | D040 | 211 | 7,800 | DRMO Storage |
| 22. Spent Halogenated Solvent Wastes | Trichloroethane, and trichloro-fluoroethane | F001 | 211, 214 | 130,000 | DRMO Storage |
| 23. Spent Halogenated Wastes | Absorbents, methylene chloride, tetrachloro-ethylene, trichlorotri-fluoroethane, labpack, dichloromethane, trichloromonofluoromethane, and trichloroethylene | F002 | 211, 351, 214 141, 352, 221 212, 741, 343 342 | 350,000 | DRMO Storage |
| 24. Spent Non-halogenated Solvent Wastes | Paint thinner, acetone, ethyl benzene, cyclo-hexanone, methanol, methyl ethyl ketone, methyl isobutyl ketone, toluene, xylene, n-butyl alcohol, and trichloroethane | F003 | 331,352, 212 211 | 7,500 | DRMO Storage |

| Waste Category | Waste Description | EPA Waste Code | California Waste Code | Estimated Annual Generated Quantity (pounds) | Process |
|---|---|---|---|---|---|
| 25. Non-halogenated Solvents | Paint wastes, methyl ethyl ketone, and toluene | F005 | 331 | 22,000 | DRMO Storage |
| 26. Plating Bath Residue Waste | Cyanides | F008 | 491 | 1,030 | DRMO Storage |
| 27. Pentachlorophenol Containing Waste | Pentachlorophenol | F027 | 331 | 500 | DRMO Storage |
| 28. Acetone Waste | Acetone | U002 | 212 | 850 | DRMO Storage |
| 29. Aniline Containing Waste | Aniline | U012 | 343 | 15 | DRMO Storage |
| 30. p-Dichlorobenzene Containing Waste | p-Dichlorobenzene | U072 | 211 | 65 | DRMO Storage |
| 31. Dichlorodifluoro Methane Wastes | Dichlorodifluoromethane | U075 | 211 | 50 | DRMO Storage |
| 32. Dichloromethane Containing Wastes | Wastes compressed gas and waste methylene chloride | U080 | 751, 741, 214 | 400 | DRMO Storage |
| 33. Formaldehyde Containing Wastes | Formaldehyde | U122 | 134 | 250 | DRMO Storage |
| 34. Hydrazine Containing Wastes | Hydrazine fuel-contaminated wastewater | U133 | 135, 134 | 15,000 | DRMO Storage |
| 35. Methane Containing Wastes | Methyl alcohol | U154 | 212 | 900 | DRMO Storage |
| 36. Methyl Ethyl Ketone Containing Wastes | MEK | U159 | 212 | 2,500 | DRMO Storage |
| 37. Tetrachloroethyl or Containing Wastes | Tetrachloroethylene | U210 | 211 | 150 | DRMO Storage |

| Waste Category | Waste Description | EPA Waste Code | California Waste Code | Estimated Annual Generated Quantity (pounds) | Process |
|---|---|---|---|---|---|
| 38. 1,1,1-Trichloroethane Containing Wastes | 1,1,1-Trichloroethane | U226 | 211 | 150 | DRMO Storage |
| 39. Beryllium Containing Wastes | Beryllium | P015 | 141 | 15 | DRMO Storage |
| 40. Carbon Disulfide Containing Wastes | Carbon disulfide | P022 | 343 | 100 | DRMO Storage |
| 41. Methyl Hydrazine Containing Wastes | Methyl Hydrazine | P068 | 135 | 670 | DRMO Storage |
| 42. P-Nitrophenol Contaminated Waste | P-nitrophenol | U170 | 331 | 100 | DRMO Storage |
| 43. PCBs | Decommissioned electrical equipment with PCBs and PCB-contaminated oil | -- | 261 | 61,000 | DRMO Storage |
| 44. Various Types of Hydrazine Containing Wastes | Hydrazine Fuel-containing wastewater | U098 | 134, 135 | 600,500 | Tank Storage and IWTP Treatment |
| 45. Halogenated Solvent Containing Waste | Halogenated solvent wastes | F002 | -- | 50,000 | IWTP Treatment |
| 46. Ignitable Waste | Propellants, explosives and pryotechnics | D001 | -- | 8,000 | Open Detonation |
| 47. Lead Containing Wastes | Propellants, explosives and pyrotechnics | D008 | -- | Included with above | Open Detonation |
| 48. Ignitable Waste<br>Unit | Fluorescent tubes residue containing phosphorus | D001 | 181 | 36,000 | Fluorescent Lamp Disposal |
| 49. Mercury Containing Wastes | Fluorescent tubes residue containing mercury | D009 | 181 | Included with above | Fluorescent Lamp Disposal Unit |

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APPENDIX 4 TO THE BASIC 30 SPACE WING PLAN 32-7043-B (U)
ACRONYMS

| ***Abbreviation or Acronym*** | ***Definition*** |
|---|---|
| AFB | Air Force Base |
| CCR | California Code of Regulations |
| CFR | Code of Federal Regulations |
| DOT | U.S. Department of Transportation |
| DRMO | Defense Reutilization and Marketing Office |
| DTSC | Department of Toxic Substances Control |
| ELAP | Environmental Laboratory Accreditation Program |
| EOD | Explosive Ordnance Disposal |
| EPC | Environmental Protection Committee |
| HWMP | Hazardous Waste Management Plan |
| HWCF | Hazardous Waste Characterization Form |
| HWMU | Hazardous Waste Management Unit |
| LDR | Land Disposal Restriction |
| MSDS | Material Safety Data Sheet |
| OPR | Office of Primary Responsibility |
| PCB | polychlorinated biphenyl |
| PEP | propellants, explosives, and pyrotechnics |
| QA/QC | quality assurance/quality control |
| RCRA | Resource Conservation and Recovery Act |
| SLC-7 | Space Launch Complex 7 |
| TCLP | Toxicity Characteristic Leaching Procedure |
| TSDF | Treatment, Storage or Disposal Facility |
| U.S. EPA | U.S. Environmental Protection Agency |
| VAFB | Vandenberg Air Force Base |
| WAP | Waste Analysis Plan |
| WES | Wing Environmental Services |
| WET | Waste Extraction Test |
| WSI | Waste Stream Inventory |
| 30 SW | 30th Space Wing |

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ANNEX A TO 30 SPACE WING PLAN 32-7043-B (U)
TASK ORGANIZATION

| ORGANIZATION | COMMANDER |
|---|---|
| 30th Space Wing | 30 SW/CC |
| 30th Logistics Group | 30 LG/CC |
| 30th Contracting Squadron | 30 CONS/CC |
| 30th Support Group | 30 SPTG/CC |
| 30th Civil Engineering Squadron | 30 CES/CC |
| 30th Medical Group | 30 MDG/CC |
| 30th Aerospace Medicine Squadron | 30 AMDS/CC |
| Defense Reutilization and Marketing Office | DRMO/UBH |
| Space and Missile Center | SMC/CEW |

STEPHEN L. LANNING
Colonel, USAF
Commander

OFFICIAL:

STEVEN C. BOYCE, Col, USAF
Commander, Civil Engineering Squadron

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ANNEX C TO 30 SPACE WING PLAN 32-7043-B (U)
OPERATIONS

REFERENCES: a. Air Force Policy Directive, 32-70, *Environmental Quality*, 20 July 1994.
b. Air Force Pamphlet, 32-7043, *Hazardous Waste Management Guide*, November 1995.
c. Code of Federal Regulations, Title 40, Part 264.13.
d. California Code of Regulations, Title 22, Division 4, Section 66264.13.
e. Hazardous Waste Facility Permit (RCRA, Part B Permit), OD/S 95/96-3-001, Vandenberg Air Force Base, 13 June 1996.

1. SITUATION.

a. Purpose. This plan ensures proper characterization of hazardous wastes and their storage at the Hazardous Waste Management Unit (HWMU), Building 3300.

b. Assumptions. Management of hazardous waste will be in accordance with the Part B Permit.

c. Area of Operation. The area of operation for this plan is North Vandenberg AFB and South Vandenberg AFB.

2. MISSION. To achieve environmental excellence through aggressive compliance and innovation.

3. EXECUTION. Refer to the Basic Plan for a concept of operations.

4. ADMINISTRATION AND LOGISTICS. Refer to the Basic Plan and Annex J to determine resources required to execute this plan.

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5. COMMAND AND SIGNAL. Not applicable.

STEPHEN L. LANNING
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ANNEX J TO 30 SPACE WING PLAN 32-7043-B (U)
COMMAND RELATIONSHIPS

REFERENCES: a. AFPAM 32-7043, *Hazardous Waste Management Guide*, November 1995.
b. 30 SW Plan 32-7043-A, *Hazardous Waste Management Plan (HWMP*), 24 July 1998.

1. GENERAL.

a. Purpose. This annex provides organizational relationships supporting the characterization and disposal of hazardous wastes on Vandenberg AFB.

b. Mission. To achieve environmental excellence through aggressive compliance and innovation.

2. COMMAND LINES. Appendix 1 to Annex J provides the command relationships diagram which depicts the command lines for this plan.

3. SUPPORT, PLANNING AND COORDINATION RELATIONSHIPS. The Defense Reutilization Marketing Office (DRMO) has responsibility for operating the HWMU. However, there are many organizations that have collateral responsibilities to ensure the proper turn-in of wastes, and to support DRMO in managing the HWMU. Implementation and effective operation of a waste analysis program require maximum cooperation of all these organizations. Specific responsibilities for tasked organizations are described in this section.

a. Installation Commander (30 SW/CC).

(1) Responsible for compliance with federal, state, and local laws and regulations applicable to this WAP.

(2) Ensures appropriate Command attention and support.

(3) Chairs the Environmental Protection Committee (EPC).

b. Environmental Protection Committee.

(1) Reviews and coordinates WAP requirements, and ensures implementation through plans, policy letters, or other means, as appropriate.

(2) Reviews the WAP annually to ensure changes are submitted as needed to keep the plan up to date.

c. 30 Support Group (30 SPTG/CC). The Support Group ensures applicable assigned organizations implement and support this plan.

d. 30 Civil Engineering Squadron (30 CES/CC). The Civil Engineering Squadron assigns, equips, and trains sufficient Civil Engineering resources to support the implementation of this plan.

e. Environmental Management Flight, Compliance Section (30 CES/CEVCC).

(1) Serves as the office of primary responsibility (OPR) for this plan.

(2) Ensures the hazardous waste management process complies with all federal, state, and local requirements.

(3) Provides technical support with regard to hazardous waste disposal and recordkeeping.

(4) Directs the WES Contractor in profiling hazardous waste and updating this plan.

(5) Incorporates changes to the WAP at least annually to ensure that the most up-to-date procedures are conducted, and the WAP is correct and current. Submits plan revisions to the EPC for review and approval.

f. Defense Reutilization Marketing Office (DRMO/UBH).

(1) Operates the permitted hazardous waste storage facility (Building 3300) at Vandenberg AFB.

(2) Assigns, equips, and trains sufficient resources to support this WAP.

(3) Verifies the hazardous waste received is acceptable for storage at the facility, and that a Hazardous Waste Profile Sheet (VAFB Profile) exists for each hazardous waste stream upon receipt.

(4) Reviews each VAFB Profile annually to validate currency. Notifies 30 CES/CEVCC on the adequacy of the continued use of a specific VAFB Profile.

(5) Maintains a file, that contains, as a minimum, copies of each VAFB Profile, applicable analytical results, AF Form 2005, DD Form 1348-1, and manifest, for hazardous wastes approved for storage at the permitted hazardous waste storage facility.

(6) Provides management and direction to the disposal contractor to ensure transportation and disposal requirements are met.

g. 30 Medical Group Commander (30 MDG/CC). The Medical Group Commander ensures applicable assigned organizations implement and support this plan.

h. 30 Aerospace Medicine Squadron (30 AMDS/CC). The Aerospace Medicine Squadron Commander assigns, equips, and trains sufficient resources to support the implementation of this plan through Bioenvironmental Engineering Services.

i. Bioenvironmental Engineering Services (30 AMDS/SGPB).

(1) Assists tasked organizations, as needed, with hazardous waste characterization based on user knowledge, process information, documentation such as MSDS, and/or chemical analysis.

(2) Provides advice for completing the health-related sections of the VAFB Profiles.

(3) Coordinates changes to the VAFB Profile format with 30 CES/CEVCC.

j. Logistics Group (30 LG/CC). The Logistics Group Commander assigns, equips, and trains sufficient resources to support the implementation of this plan through various squadrons and branches within the Logistics Group.

k. 30 Contracting Squadron (30 CONS/CC). The Contracting Commander ensures applicable assigned organizations implement and support this plan.

l. Base Contracting Officer (30 CONS/LGC). Assists with the implementation of this plan by providing management and direction to the various contractors operating on Vandenberg AFB. This plan is not to be construed as a contract directive, unless a contract incorporates it by references as a directive. Contracting officers will ensure that the WAP is implemented through appropriate contractual documents.

m. Wing Environmental Services Contractor.

(1) Supports and maintains this WAP as stipulated in the Contractor's Statement of Work.

(2) Assists process owners/operators with the determination and identification of hazardous wastes to be managed at the permitted hazardous waste storage facility, and with completing VAFB Profiles. Approves VAFB Profiles for each process owner/operator.

(3) Reviews each VAFB Profile annually, and notifies 30 CES/CEVCC on the adequacy or inadequacy of the continued use each VAFB Profile.

(4) Verifies the hazardous waste received is acceptable for storage at the permitted hazardous waste storage facility, and that a VAFB Profile exists for each hazardous waste stream.

(5) Verifies through random open container inspections and/or reevaluation sampling and analysis that the waste received is as described on the VAFB Profile.

(6) Maintains copies of the hazardous VAFB Profile and other associated turn-in documents.

(7) Coordinates the sampling and analysis required by AFI 32-7042.

n. Hazardous Waste Process Owners/Operators.

(1) Ensure that properly equipped, trained, and motivated personnel are assigned to characterize and manage hazardous wastes for their unit/contract.

(2) Coordinate with WES Contractor to provide information (HWCF and supporting documentation) in support of development of the VAFB Profile.

(3) Provide Grantt and VAFB Profile numbers when initiating a container.

(4) Ensure all hazardous wastes are properly characterized when newly generated, or when waste streams have changed.

(5) Provide comprehensive descriptions of all hazardous waste streams generated by their units or contractors under their control. Provide the WES contractor with process description and manufacturer data (e.g., MSDS or analytical data).

(6) Quantify hazardous waste amounts for all hazardous waste streams.

(7) Review each hazardous VAFB Profile to ensure the waste stream and process, or processes, that generated the waste stream are accurately described.

(8) Maintain copies of the VAFB Profile and other associated turn-in documents.

(9) Prepare operating instructions/procedures, as necessary, to effectively implement this WAP.

o. Judge Advocate Office (30 SW/JA/JAV). Provides legal opinions and guidance on federal, state, local, and Air Force rules and regulations as applicable to this plan.

p. Space and Missile Center (SMC/CEW). Tenant SMC organizations will assist with the implementation of this WAP by providing management and direction to the various contractors operating on Vandenberg AFB that do not come under the control of 30 CONS/LGC. This WAP is not to be construed as a contract directive unless a contract incorporates it by reference as a directive. Contracting officers will ensure that this WAP is implemented through appropriate contractual documents.

q. Base Plans (30 SW/XP). Provides a copy of the WAP to those host-tenant agreement organizations generating hazardous waste that will be sent to the Vandenberg AFB permitted hazardous waste storage facility.

STEPHEN L. LANNING
Colonel, USAF
Commander

Appendix 1:
Command Relationships Diagram

OFFICIAL:

STEVEN C. BOYCE, Col, USAF
Commander, Civil Engineering Squadron

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1999

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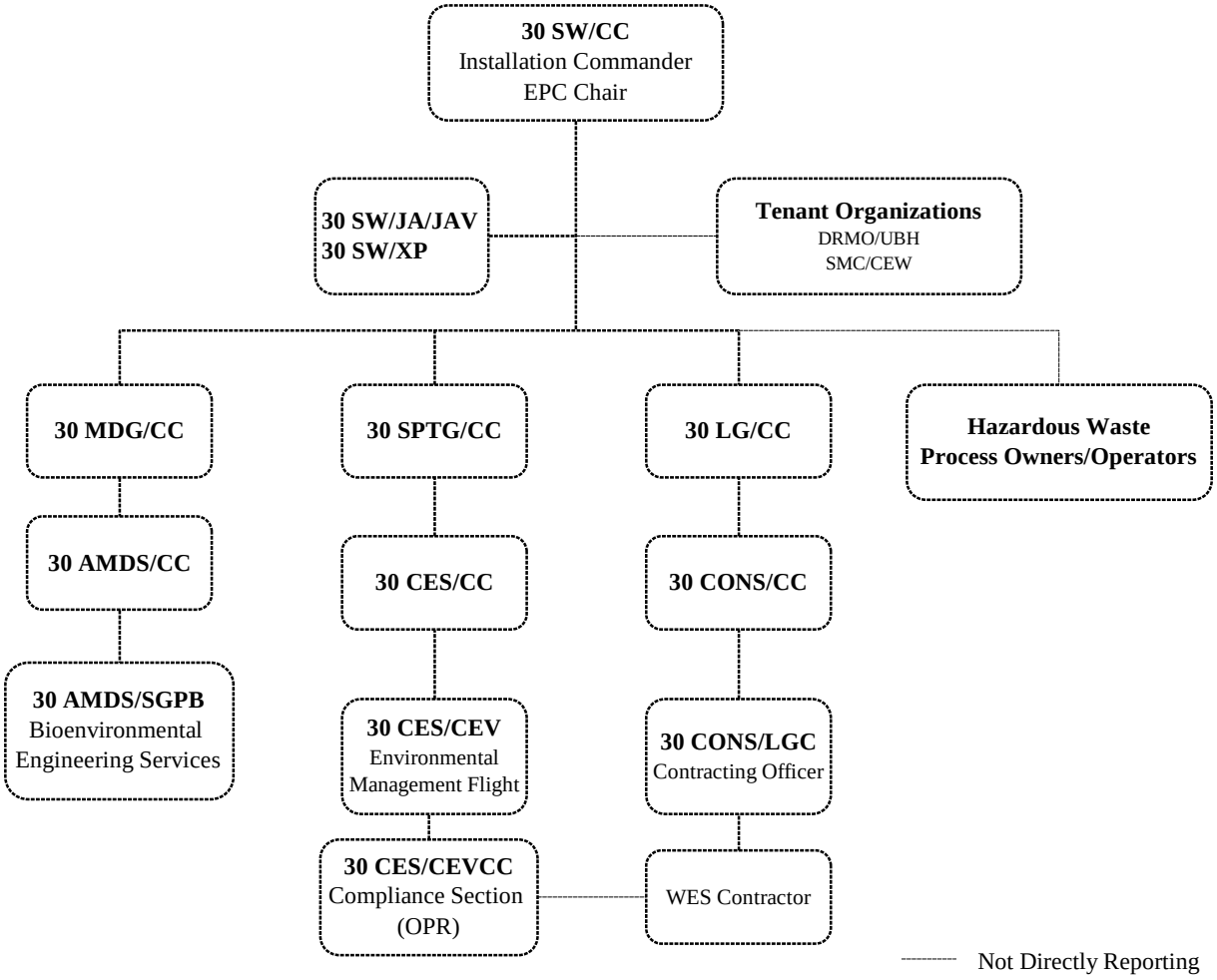
HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1999

APPENDIX 1 TO ANNEX J TO 30 SPACE WING PLAN 32-7043-B (U)
COMMAND RELATIONSHIPS DIAGRAM



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STEPHEN L. LANNING
Colonel, USAF
Commander

OFFICIAL:

STEVEN C. BOYCE, Col, USAF
Commander, Civil Engineering Squadron

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